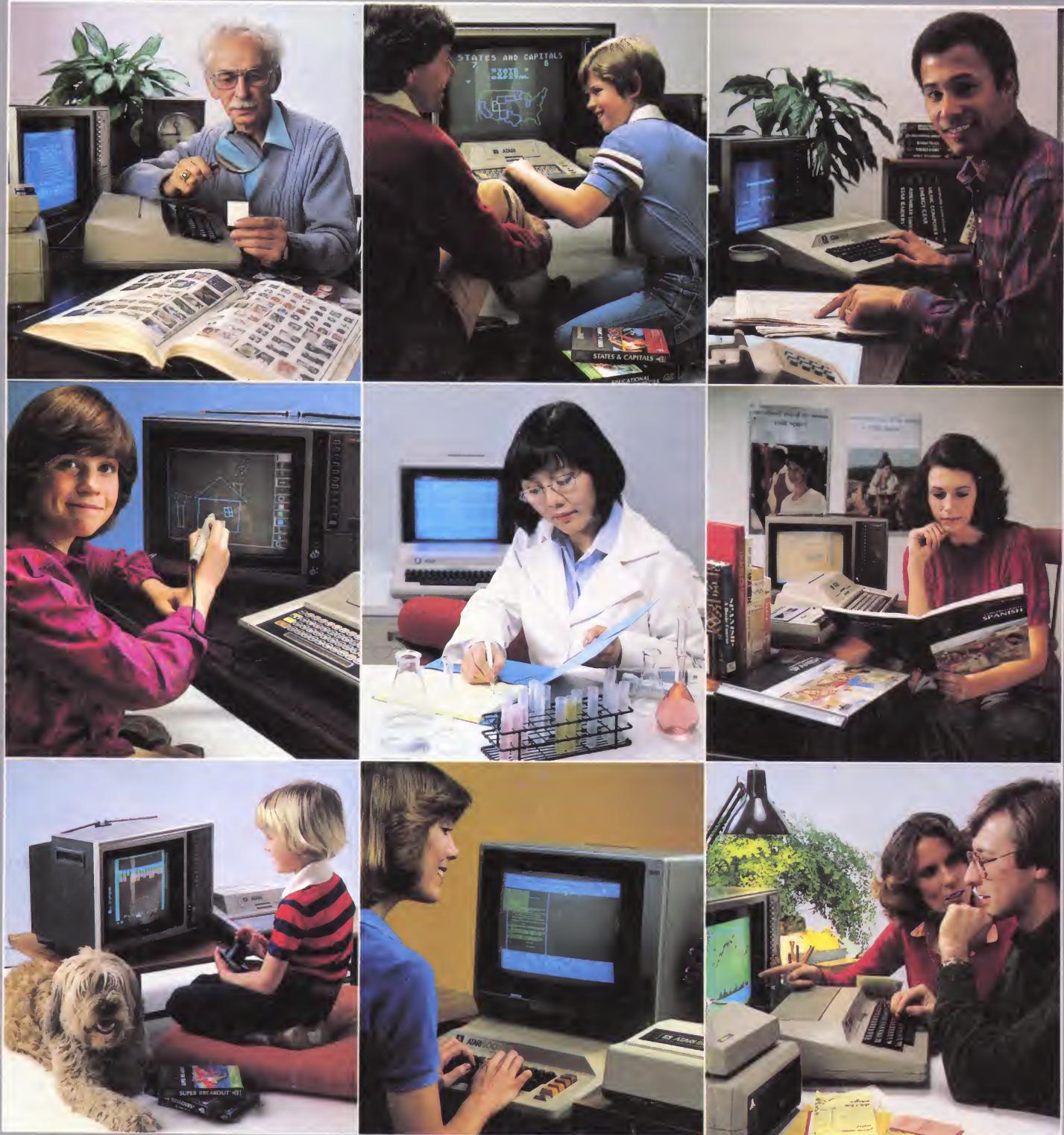


ATARI® PERSONAL COMPUTER PRODUCT CATALOG

Computers for people.™



A Warner Communications Company

\$1.00

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ABOUT THIS CATALOG

This catalog contains all current ATARI computer products. Section 1 briefly describes computers, the advantages of owning a personal computer, and the specific reasons why an ATARI Personal Computer System can be your best choice.

Section 2 outlines ATARI Personal Computers' modular design.

Section 3 lists the uses of ATARI Personal Computers and the programs and equipment you'll need for each use.

Section 4 describes ATARI Personal Computers, equipment and accessories with complete product descriptions, including capabilities, features and specifications.

Section 5 covers customer support and service, warranty information, documentation and technical support information.

This Catalog is designed to give you all the information you'll need to decide which system best fits your current and future computer needs.



WHY BUY A PERSONAL COMPUTER?

WHAT A COMPUTER IS.

USEFUL TERMS

Computer: An electronic device capable of recording, manipulating and storing alphabetic and numerical data.

Hardware: In computer terms, hardware includes the computer, its peripherals and any add-in or add-on equipment.

Software: Instructions which tell the computer to perform a specific series of tasks—computer programs.

Peripherals: Equipment connected to the computer to give it added capabilities, e.g., printers and data storage devices.

Languages: Sets of words, symbols and conventions used to tell the computer what to do.

K: Kilobyte. Approximately 1,000 bytes of memory. Each byte can store one alphabetic character or one digit of a number. A minimum of 8K bytes of memory is generally required to run simple programs. As much as 48K is required to run large or complex programs.

Memory: That part of the computer where information is stored. There are two kinds of computer "memory": memory which permanently stores information in the computer (Read Only Memory, or ROM) and temporary memory in which the user can change information (Random Access Memory, or RAM).

ROM: Read Only Memory. ROM provides permanent storage of information, such as computer programs, and cannot be altered.

ATARI® utilizes ROM cartridges as a simple and convenient means to program the computer.

RAM: Random Access Memory. RAM retains data only so long as the computer is turned on. That's why it's necessary to store programs on cassette tape or diskette. When you are ready to use them, you transfer them into RAM and tell the computer to run them.

Input/Output (I/O): The way the computer interacts with the user and peripheral devices. Input from the user is via the computer console keyboard and peripherals such as a cassette recorder, disk drive or modem. Output is via a television, monitor screen or peripherals such as a printer, modem or disk drive.

Application: The act of putting a computer to use. Applications programs tell the computer to perform specific tasks, such as word processing, accounting or telecommunication.

Operating System (O/S): Software always present in ATARI computers which supervises the performance of ordinary tasks.

Disk Operating System (DOS): Software which supervises the interface between the computer and a disk drive storage device. Typical instructions are read (deliver information to the computer) and write (store information in the disk system).

Easy-Chain: The way ATARI peripherals are connected to the computer console. Each peripheral has two I/O ports. The first peripheral is connected directly to the computer, the next peripheral is connected to the first one, and so on.

All computers, whether large or small, are simply tools for managing information. Given proper instructions, computers can handle almost any kind of data and give you almost instant information. The key lies in the instructions given to the computer. Unlike a calculator, a computer handles alphabetic data and instructions as well as numbers. The computer's ability to be "programmed" allows you to control, manage, analyze and store quantities of useful information. As a tool, it frees you from repetitive work, acting as an extension of your mind. It can manage lists, perform repetitive calculations, store data for later update, instruct, entertain, manage inventory or even communicate with other computers.

HOW COMPUTERS BECAME PERSONAL.

Not long ago, computers were large, complex to use and priced well beyond the reach of the average person. Today, ATARI Personal Computers are small, easy to use and program, and within the reach of the average person. Thus, they are truly "personal" computers, affordable to families, students, small businesses and professional people.

PROGRAMMING A COMPUTER.

Computer programming is not mysterious. In fact, you don't even have to understand programming to use an ATARI Personal Computer. There are dozens of pre-written programs available—personal productivity programs, educational and game programs, office management programs, and many more. You simply insert a cartridge, diskette or cassette, press a few keys, and your computer is programmed to perform a given task such as word processing or inventory control, or to help you to learn languages, compose musical scores, or manage household lists. On the other hand, ATARI Personal Computers can be programmed in easy-to-learn programming languages such as BASIC and PILOT. Assembly language is available for more experienced users.

WHAT AN ATARI PERSONAL COMPUTER CAN DO FOR YOU.

The ATARI Personal Computer along with the rapidly expanding ATARI program library can relieve you of the drudgery of dozens of routine and non-creative tasks—tasks that don't require judgment. In effect, ATARI computers can free you to use your own mind more creatively. The computer performs the routine tasks to present you with the information you need to make decisions, compare alternatives or increase your personal productivity. It also teaches, entertains and does things that you can't do. Here are a few examples:

Personal Finance and Record Keeping. ATARI's program library includes investment

analysis programs for stock, bond and loan analysis, plus stock charting and a mailing list program for managing almost any list.

Personal Interest and Development. ATARI offers programs that teach foreign languages, touch typing, even computer programming. Music Composer™ allows you to play a tune on your computer...in four-part harmony. You can also print out your biorhythm.

Education. ATARI educational programs are available for all levels of learning. From Spelling for grammar school children to Basic Algebra, Physics, and Principles of Economics, plus learning simulations such as Kingdom™ and Scram™ (A Nuclear Power Plant Simulation).

Information and Communication. The TeleLink™ cartridge turns your ATARI Personal Computer into a remote terminal that gives you access to information stored in large computer data bases, such as airline schedules, stock quotes and the UPI Newswire, over regular telephone lines.

Entertainment. As the inventor of computer games, ATARI offers a full range of exciting, colorful games for ATARI Personal Computers. Among the most popular are Star Raiders,™ Space Invaders,™ Asteroids,™ Missile Command™ and Computer Chess. New games are always under development.

Programming Languages. As your skill and familiarity with your ATARI Personal Computer increase, you may want to create your own programs. BASIC, PILOT and assembly language programming languages are available in slide-in cartridges.

USING THE ATARI PERSONAL COMPUTER IN BUSINESS.

ATARI provides powerful productivity tools for the small business and professional user.

The ATARI Accountant.™ ATARI's small business accounting packages provide sophisticated general accounting, accounts receivable and inventory control programs to small business and professional users. The ATARI Accountant can provide the kind of immediate, up-to-date business information managers need to make timely and accurate business decisions.

The ATARI Word Processor. Word processing is a perfect example of the ATARI Personal Computer's ability to manage correspondence and reports. The Word Processor program allows writing, editing, formatting, transposition, insertion, deletion and addition of material to any text. The program will print out text or store it for later editing, all at a great saving in human time.

Calculator. With this program your ATARI Personal Computer becomes a powerful, 145-function programmable calculator. It's a particularly powerful and useful tool for engineering, scientific and professional users.

*Trademark of Taito America Corporation

THE ATARI® PERSONAL COMPUTER SYSTEM



ATARI IN YOUR FUTURE.

Right now, the ATARI Personal Computer allows you to interact with other computers, monitor finances, store and manage lists and records, make airline reservations, educate on many levels, send and receive "electronic mail" (correspondence sent by one computer to another via telephone lines), and entertain your entire family. In the future, you'll be able to bank at home, control household systems, shop, and monitor devices from

remote locations. You may even work at home, communicating with the office through your personal computer.

COMPUTER LITERACY.

Industry authorities predict that by 1990, one of every four Americans will own a computer and that computers will be routinely utilized in almost every phase of business and the professions. Schools, recognizing this trend, are teaching computer use and computer

programming at early grade levels. In fact, computer literacy, the ability to understand and utilize computers, is essential to the educational and professional development of today's learning generation. ATARI is committed to continuing development of computer literacy at all levels.

COMPUTERS FOR PEOPLE.™

Based on years of experience in the field of consumer electronics, ATARI has designed personal computers which are both power-



ful and easy to use. All operating system software is built into each computer, which means that ATARI Personal Computers are ready to use when you plug them in. ATARI's rapidly expanding library of software and breadth of easy-to-connect hardware components means that your ATARI Personal Computer can grow with you as your needs increase. This "modularity" also means that your ATARI computer will virtually never become obsolete.

YOUR COMPUTER STORE.

Your ATARI computer dealer will be happy to help you understand the ATARI Personal Computer System. Qualified computer sales personnel will help you select the exact system that fits your particular needs. Drop in for a complete demonstration of any ATARI Personal Computer product. For the name of your nearest dealer, call (800) 538-8547 toll free. (In California, (800) 672-1430.)

SYSTEMS THAT GROW WITH YOU.

ATARI Personal Computer Systems have been specifically designed for "modular" expansion (see Section 2, "ATARI Computers' Modular Design"). Both the ATARI 400™ and ATARI 800™ Personal Computers accept a series of easily added peripheral devices. This modular concept means that your ATARI Personal Computer may be expanded as your computer requirements grow.

POWERFUL PERSONAL COMPUTERS.

Both the inexpensive ATARI® 400™ and the even more flexible ATARI 800™ computers share many powerful features. Both offer a 10K Read Only Memory (ROM) operating system. Both may be used with ATARI program cartridges, cassettes or diskettes. Both offer advanced color graphics (128 possible hues), upper and lower case letters from a full 57-key ASCII keyboard, built-in screen editor, four-way cursor control, eight graphics modes plus 29 graphics keys. Both have FCC-approved built-in RF modulators and memory shielding which protect you and your neighbors from television reception interference. Both provide four independently programmable sound synthesizers and a built-in speaker. Both offer the color shift feature which protects your video screen from computer "burn-in." And both are fully tested by a master computer and carry ATARI's limited warranty.

PRODUCT SUPPORT.

ATARI builds the only personal computers that are fully tested by a master computer, the ATARI Sentinel System. What that means to you is maximum reliability. But, should anything go wrong, you'll find a network of ATARI Authorized Service Centers throughout the country. These centers can perform timely repairs on any ATARI Personal Computer or peripheral device. This "confidence factor" is particularly important to those who plan to use ATARI Personal Computers on a daily basis.

SOFTWARE SUPPORT.

ATARI is actively engaged in developing new and better software for both the ATARI 400 and ATARI 800 computers. In addition, ATARI supports and encourages other software suppliers in the development of programs, such as VisiCalc* from Personal Software, Inc. This means ATARI computer owners can look forward to the availability of more and more programs.

THE VALUE OF EXPERIENCE.

ATARI is one of the world's largest manufacturers of microprocessor-based electronic products. Millions of ATARI Video Computer System™ games (VCS™) have been sold throughout the world. ATARI Personal Computers use the same family of microprocessors and ROM's as the VCS. We have used our experience in building the Video Computer System to produce a powerful and reliable personal computer. ATARI uses sophisticated equipment to test incoming integrated circuits and to test final assembled computers prior to shipping. As a pioneer in microcomputer products, ATARI's manufacturing methods and quality control techniques assure you that your ATARI system will provide years of reliable service.

WHAT TO LOOK FOR IN A PERSONAL COMPUTER SYSTEM.

Programming ease. ATARI Personal Computers accept cassette, diskette and cartridge programs. In addition, owners may write their own programs in ATARI BASIC, PILOT, and assembly language. Other languages will be available in the future.

Typewriter-like keyboard. ATARI Personal Computers give you a typewriter-like keyboard with upper and lower case letters, keystroke graphics, cursor control and four special function keys.

Software. You can choose from many ATARI programs. See Section 3, "Uses of ATARI Personal Computers," for a complete list. In addition a number of programs are available from independent suppliers. For those who wish to learn to write their own programs, the ATARI BASIC Self-teaching Guide is available.

Expandability. The ATARI Personal Computer is the beginning of a system, not the end of it. Dozens of optional programs and accessories are available.

Memory. The ATARI 800 computer can be expanded to 48K of Random Access Memory (RAM). The ATARI 400 computer can be expanded to 16K of RAM.

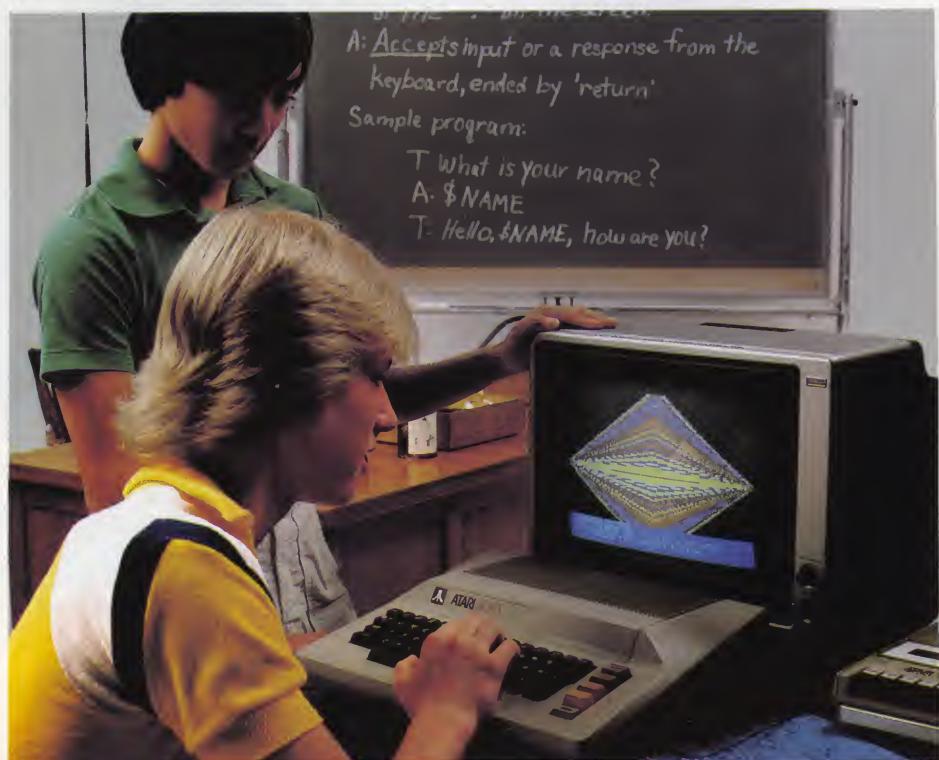
Color and graphic capabilities. ATARI Personal Computers let you choose from 8 colors in 16 intensities for a total of 128 possible hues. And ATARI computers have higher graphics resolution than most personal computers.

Sound. ATARI offers you four sound synthesizers and a built-in speaker. You can create a variety of sounds, even music in four-part harmony. The ATARI 410™ Program Recorder provides two tracks—a digital track for programs, and an audio track for voice and recorded sound effects. ATARI Talk & Teach™ courseware and other ATARI cassette software take advantage of this capability.

Modularity. ATARI Personal Computers' modular design allows you to easily add components to your system, or develop a full system for a particular purpose. There is an input/output port for simple connection of peripherals to the computer console.

Custom electronic circuits. ATARI is one of the few personal computer manufacturers to use custom designed integrated circuits. ATARI Personal Computers utilize five Large-Scale Integrated (LSI) Circuits. Three were designed by ATARI and give ATARI Personal Computers their exceptional color, graphics and sound capabilities. Each custom chip replaces 20 to 30 of the standard components used in other personal computers. Thus, ATARI Personal Computers have more capabilities with fewer components. ATARI Personal Computers have less than half the number of components of most competing computers. Having fewer components reduces the possibility of computer failure, thus increasing reliability.

*Trademark of Personal Software, Inc.



ATARI® COMPUTERS' MODULAR DESIGN



PERSONAL COMPUTER SYSTEMS THAT GROW WITH YOU.

Build your system your way. Start with an ATARI Personal Computer and a data storage device. Then add memory, programs and peripherals a piece at a time. That way, you can have the system you need today and build to the system you'll need tomorrow. As you become more familiar with computers and as new programs and peripherals become available for ATARI computers, you will undoubtedly want to expand your system.



Add memory. Expand your ATARI 800™ Personal Computer to 48K of Random Access Memory (RAM). It's as simple as plugging in ATARI Memory Modules. Either 8K or 16K modules may be added to provide you with flexibility in choosing or writing programs. Many ATARI programs require no more than 8K or 16K of RAM to run, but the more complex programs such as the ATARI Accountant,™ the ATARI Word Processor and the Dow Jones Investment Evaluator™ require fully expanded 48K RAM systems. Other



Add programs. The programs in ATARI's rapidly expanding program library are easy to install and use, whether in cartridge, diskette or cassette form. ATARI's solid state program cartridges are particularly simple to install. Just plug them in, close the console cover and the program appears on the screen. To use a program diskette, turn on the disk drive, insert the diskette, close the disk drive door and turn on the computer. The program loads automatically. Insert program cassettes into the Program Recorder, rewind the tape to the



Add peripherals. ATARI Personal Computer peripherals are designed to be "daisy-chained" together. Starting with the computer, additional peripherals are each connected to the last; e.g., the ATARI 810™ Disk Drive is connected to your computer, the ATARI 820™ 40-Column Printer is then connected to the disk drive...and so forth. For additional peripheral expansion, the ATARI 850 Interface Module allows you to add the ATARI 830™ Acoustic Modem, ATARI 825™ 80-Column Printer, and many non-ATARI peripherals, such

Easy expansion. The ATARI Personal Computer is specifically designed for easy expandability. Memory Modules™ and many ATARI programs may be plugged into the computer in seconds. Adding peripherals is as easy as connecting one device to the computer through its peripheral port, "daisy-chaining" peripherals or adding the ATARI 850™ Interface Module. Programs and peripherals for ATARI Personal Computers are available from many sources.

programs don't require 48K of RAM, but additional RAM allows you the flexibility to write longer music compositions with Music Composer,™ sort more records with Mailing List, analyze more data values with Statistics I, or write longer programs with ATARI programming languages.

beginning and execute a few simple commands. When the screen reads READY, type RUN... and away you go. All ATARI software comes with complete, easy to understand instructions. ATARI programs are designed to be easy to use, even by people who know nothing about computers or computer programming. Many programs are suitable for children.

as graphics tablets, plotters, daisy-wheel or graphics printers, hard disk drives, or direct-connect modems. The ATARI 830 Acoustic Modem and the TeleLink™ cartridge turn your ATARI Personal Computer into a computer terminal that gives you access to the program libraries of large computers, thus greatly increasing the number of applications and information available to you.



USES OF ATARI® PERSONAL COMPUTERS

PERSONAL FINANCE & RECORD KEEPING

To show you what ATARI computer equipment you need for each program, the numbers to the left of the program names correspond to the photographs at the bottoms of the pages. Estimated availability dates are given for products not already available. Delivery dates are subject to change. ATARI reserves the right to modify programs without notice.

PERSONAL FINANCE & RECORD KEEPING

1. PERSONAL FINANCIAL MANAGEMENT SYSTEM™ (CX406)††

The ATARI Personal Financial Management System is a database-oriented system designed to help you plan and analyze your budget. Use it to keep track of all financial transactions, including cash, checking accounts, savings accounts and credit card use. You can look up past checks, credit card expenses or cash expenses. Records can also be displayed by budget category, date or payee.

It also allows you to set budget goals and receive charts and printouts that follow budget progress. You can analyze your budget by selecting expense categories (food, automobile, medical, savings, mortgage and other payments) and see what percentage each one is of your total budget. The program will also allow you to use present data to forecast future trends. Consists of two program diskettes and one blank data diskette. Requires the ATARI 800™ Computer and the ATARI 810™ Disk Drive. ATARI Printer optional.

Minimum RAM requirement: 32K

INVESTMENT ANALYSIS SERIES

The Investment Analysis Series of programs includes Bond Analysis, Stock Analysis, Stock Charting and Mortgage & Loan Analysis (each sold separately). You can use these programs to analyze your current investments and to help determine which investments to make in the future.

1. BOND ANALYSIS* (CX8106)

Use your ATARI 800 Personal Computer System to study and calculate bond investments. The Bond Analysis diskette program features two analysis programs:

a. **Bond Price and Interest** computes the price and accrued interest for a given bond and provides the annual coupon in dollars, the redemption value, the maturity and the yield.
b. **Bond Yield** calculates the before and after tax yield of a given bond using two tax rates, one for ordinary income and one for capital gains. You provide the computer with the present price, time to maturity and tax rates for both ordinary income and capital gains.

Requires the ATARI 800 Computer and an ATARI 810 Disk Drive. Printer Optional.

Minimum RAM requirement: 24K

1. STOCK ANALYSIS* (CX8107)

Analyze your stock investments using the ATARI Stock Analysis program. This diskette contains three programs:

- a. **Portfolio Analysis** is used to evaluate portfolios. The computer uses statistical measures of return and variance to calculate the arithmetic mean and standard deviation for one or more stocks.
- b. **Stock Rate of Return** allows you to analyze the performance of a stock over a range of time. It computes and displays annual rates of return. You provide the dividend per share and the closing stock price and the computer performs the calculations.
- c. **Stock Dividend Analysis** calculates the intrinsic value of a stock. Compute the discounted present value of the estimated dividends. The program computes the length of time a growth rate must continue or the price/earnings ratio that must be reached to make the intrinsic value equal to the current market price.

These programs require the ATARI 800 Computer and the ATARI 810 Disk Drive. Printer optional.

Minimum RAM requirement: 24K

1. STOCK CHARTING* (CX8108)

With the Stock Charting program diskette you can track and study selected stocks and their market performance. This program allows you to retrieve, list and graph data entered on a daily basis. The graph includes a 6-day oscillator, closing quotes, volume and a 10-day moving average. A blank, formatted diskette is included for storage of your portfolio data. This program requires the ATARI 800 Computer and an ATARI 810 Disk Drive. Printer optional.

Minimum RAM requirement: 24K

2. MORTGAGE & LOAN ANALYSIS* (CX4115)

The Mortgage & Loan Analysis program cassette allows you to compare mortgage terms, including monthly payments and total interest payments, with varying rates of interest. (For example, the monthly payments and total interest paid on mortgages of \$10,000 and \$100,000, at interest rates of 15.5% and 16% for 25 and 30 year mortgages.) This program requires the ATARI 410™ Program Recorder. Printer optional.

Minimum RAM requirement: 16K

3. MAILING LIST (CX4104)

Use the ATARI Mailing List program to keep a record of names and addresses for Christmas cards, birthdays or club activities. A General List program is included which you can use to save other types of lists, like household inventory, insurance policies, recipes, hobbies, tapes and records. A List Customizer program lets you modify either of the List programs to the specific format you need. You can sort the data alphabetically and print labels or lists with an optional ATARI Printer. Requires the ATARI 800 Computer and an ATARI 410 Program Recorder. Disk Drive optional.

Minimum RAM requirement: 24K

DOW JONES INVESTMENT EVALUATOR™ (CX412)††

(See **Information & Communication** for description.)

† Estimated availability second quarter 1981.

†† Estimated availability third quarter 1981.

††† Estimated availability fourth quarter 1981.

* A Control Data CYBERWARE™ product manufactured under license from Control Data Corporation © 1980.



PERSONAL INTEREST & DEVELOPMENT, EDUCATION

PERSONAL INTEREST & DEVELOPMENT

AN INVITATION TO PROGRAMMING™ 1, 2, and 3

These lessons are designed to teach the fundamentals of programming in ATARI® BASIC. A recorded voice asks you questions, waits for you to respond and indicates whether you are correct or incorrect. These self-teaching courses will teach you to use BASIC programming statements as well as the color, graphics, sound and music capabilities of the ATARI Personal Computers. Requires the ATARI 410™ Program Recorder.

2. AN INVITATION TO PROGRAMMING 1: FUNDAMENTALS OF PROGRAMMING (CX4101)

This program consists of six lessons which introduce you to the ATARI computer keyboard, teach you to use the PRINT statement and perform mathematical calculations. The last lesson shows examples of the ATARI Personal Computer's color graphics and sound capabilities. One cassette.

Minimum RAM requirement: 8K

2. AN INVITATION TO PROGRAMMING 2: WRITING PROGRAMS ONE AND TWO (CX4106)††

Learn how to write programs in BASIC. These lessons cover library functions, FOR...NEXT Loops, subroutines, and READ, DATA, DIMension, PEEK and POKE statements. Includes two cassettes and a workbook.

Minimum RAM requirement: 8K

2. AN INVITATION TO PROGRAMMING 3: INTRODUCTION TO SOUND AND GRAPHICS (CX4117)††

The Introduction to Sound cassette includes lessons covering simple music theory and ATARI BASIC commands for setting the sound

registers to the desired pitch, purity and loudness levels. Learn to write BASIC programs to play your favorite tune. The Introduction to Graphics cassette teaches you to use the color registers, the graphics characters (A B C D E F), the SETCOLOR and POSITION statements, and graphics modes 0 through 5. Includes two cassettes and a workbook.

Minimum RAM requirement: 8K

2. BIORHYTHM (CX4107)

Use this program cassette to calculate physical, emotional and intellectual highs, lows and critical days. By giving the computer your birthdate you can plot a biorhythm chart on your television screen or optional ATARI Printer. 8K and 16K versions are on alternate sides of the cassette. Requires the ATARI 410 Program Recorder.

Minimum RAM requirement: 8K

2. CONVERSATIONAL FRENCH†† (CX4119), GERMAN†† (CX4118), SPANISH (CX4120) AND ITALIAN†† (CX4125)

Have your own language lab at home. See the phrases you need to know when traveling to foreign countries spelled out with descriptive color pictures on the television screen while you listen to the instructor pronounce the phrases correctly. Each language course consists of five cassettes and a workbook, with drills for situations you may encounter on a trip. You may stop the lesson at any point to practice and continue when you're ready. These programs require the ATARI 410 Program Recorder.

Minimum RAM requirement: 16K

2. TOUCH TYPING (CX4110)

Learn to type using your ATARI Personal Computer System. These program cassettes provide step-by-step instructions to familiarize you with the typewriter keyboard while gaining skill and speed. The Touch Typing

course is taught in three levels: beginning, intermediate and advanced. You learn to type a variety of different materials while the computer calculates words per minute and number of errors, and determines your weak points. The built-in sentence generator provides drill and practice to strengthen your weak points. This self-paced method of teaching Touch Typing allows you to learn at your own speed. Consists of two cassettes. Requires the ATARI 410 Program Recorder.

Minimum RAM requirement: 16K

4. MUSIC COMPOSER™ (CXL4007)

Use this cartridge and the computer keyboard to compose songs, recreate old tunes or experiment. When you program musical notes through the keyboard, you hear the melody as it is simultaneously displayed on the screen. You can change any note or the tempo. And you can arrange the music to play different sections in the order you choose. Once you have entered music, you can save it on the ATARI 410 Program Recorder or an ATARI Disk Drive. You can also write BASIC programs that can convert a melody into melody plus harmony.

Minimum RAM requirement: 8K (Larger musical compositions require more RAM.)

EDUCATION

2. ATARI® EDUCATIONAL SYSTEM EDUCATIONAL SYSTEM MASTER CARTRIDGE (CXL4001)

This cartridge allows you to use ATARI Talk & Teach™ cassette courseware (listed below). Direct interaction with the computer takes place through the keyboard, television screen, and speaker. This running dialogue between the user and the computer is highlighted by immediate feedback on accuracy and understanding. Educational levels are Elementary (E), Secondary (S), Adult/College (A) and Technical (T). Each course consists of 16 lessons on four cassettes. These programs require the ATARI 410 Program Recorder.

Minimum RAM requirement: 8K

Model No.	Title	Educational Level
CX6017	Basic Algebra	S, A
CX6016	Basic Electricity	A, T
CX6011	Basic Psychology	A
CX6005	Basic Sociology	A
CX6010	Business Communications	A
CX6006	Counseling Procedures	A
CX6012	Effective Writing	A
CX6009	Great Classics	E, S
CX6008	Physics	S, A
CX6007	Principles of Accounting	A
CX6014	Principles of Economics	A
CX6015	Spelling	E, S
CX6003	Supervisory Skills	A
CX6002	U.S. Government	E, S, A
CX6001	U.S. History	E, S, A
CX6004	World History	E, S, A

3.



ATARI 800 PERSONAL COMPUTER

4.



ATARI 400 OR ATARI 800 PERSONAL COMPUTER

ATARI 410 PROGRAM RECORDER

EDUCATION (Continued), INFORMATION & COMMUNICATION

1. HANGMAN (CX4108)

This educational program cassette has three levels of play—beginner, intermediate and expert. You play against the computer by guessing the word the computer has selected. If you do not guess the word after six tries the computer will hang your man. You may use the computer keyboard or an optional Joystick Controller to guess the letter. Suitable for ages 8 to adult. This program requires the ATARI® 410™ Program Recorder.

Minimum RAM requirement: 8K

1. KINGDOM™ (CX4102)

This educational program cassette simulates the running of a small agricultural kingdom. Catastrophe may befall your people, your food supply or your crops. You determine the farming strategy and if you are successful you are allowed to reign another term. Teaches and develops mathematical skills. Age 10 to adult. Requires the ATARI 410 Program Recorder.

Minimum RAM requirement: 8K

1. ENERGY CZAR™ (CX4121)

You are the government official responsible for the United States' energy policy. You must make decisions about such complex problems as which energy sources to use, and whether or not to subsidize or tax energy forms, tighten pollution controls, freeze prices or ration gas. You must also monitor the country's entire energy usage system, including prices, taxes and environmental effects. The results of your decisions show up in the growth rate of the economy, the inflation rate, and whether or not the public thinks you're doing a good job. This program cassette requires the ATARI 410 Program Recorder. Age 12 to adult.

Minimum RAM requirement: 16K

1. SCRAM™ (A NUCLEAR POWER PLANT SIMULATION) (CX4123)†

SCRAM is an educational simulation of a nuclear power plant. Without a technical back-

ground, you can learn the fundamentals of its operation and develop a deeper understanding of nuclear safety issues. It also provides a game option that challenges you to apply the principles that you have learned from the simulation. Bad luck increases the probability of earthquakes. Allocate workers to repair damage. Above all, try to avoid a meltdown! Used with a Joystick Controller, 16K and 24K versions are on alternate sides of the cassette. ATARI 410 Program Recorder required. Age 12 to adult.

Minimum RAM requirement: 16K

1. STATES & CAPITALS (CX4112) AND EUROPEAN COUNTRIES & CAPITALS (CX4114)

These two programs (sold separately) are educational tools designed to teach you the geography of the United States and Europe. Quiz yourself on the names and locations of the states and their capitals, or European countries and their capitals. The computer draws a map and you must identify the state or country outlined. You are then asked to guess the corresponding capital. Be sure to spell correctly. The computer keeps score. Each program consists of one cassette and requires the ATARI 410 Program Recorder. Age 10 to adult.

Minimum RAM requirement: 16K

INFORMATION & COMMUNICATION

Turn your ATARI Personal Computer into a computer terminal! You will need the ATARI 850™ Interface Module, the ATARI 830™ Acoustic Modem and a telephone. This will give you access to data bases and literally thousands of programs. These computer networks provide national and international news, stock market information, financial reports and electronic mail service (communication with other personal computer "terminals").

2. TELELINK™ 1 (CXL4015)

The TeleLink 1 cartridge automatically handles communication "handshaking" between your ATARI computer and large computers to allow you to access a variety of information networks. You can keep a copy of your conversation using any one of the ATARI Printers. TeleLink 1 includes one hour of free time on Dow Jones Information Service,† the Source Telecomputing† and CompuServe Information Service.

TeleLink 1 Technical Information:

- Data transfer rate: 300 bits per second
- Full or half duplex
- Transfers ASCII characters

Minimum RAM requirement: 8K

3. DOW JONES INVESTMENT EVALUATOR™ (CX412)††

The Dow Jones Investment Evaluator automatically connects your ATARI 800™ Computer with the Dow Jones Information Service and updates the value of your portfolios. It retrieves the current day's quotations on your stocks, U.S. and foreign bonds, mutual funds, treasury bills, and options, and then prints a report that displays your current portfolio's value and both the net and percentage changes. Additionally, the Dow Jones Investment Evaluator will collect any current financial news items and special reports on investment instruments you specify. The Dow Jones Investment Evaluator requires the ATARI 800 Computer, ATARI 810™ Disk Drive, ATARI 850 Interface Module and ATARI 830 Acoustic Modem. Printer optional.

Minimum RAM requirement: 48K

† Estimated availability second quarter 1981.

†† Estimated availability third quarter 1981.



ENTERTAINMENT

The ATARI® Personal Computer Systems' exceptional color, high resolution graphics, sound and animation capabilities are used in these entertainment programs, consisting of some of the most popular games in the world. Entertain yourself, your family and friends with these challenging games of strategy and fun.

4. ASTEROIDS™ (CXL4013)††

Asteroids draws you into a science-fiction fantasy like the best selling ATARI arcade game, with several play options. The object is to destroy asteroids that cross the screen before they crash into your spacecraft. Sound easy? It's not. These "enemy" asteroids become progressively smaller, swifter and more dangerous. And just to keep you honest, flying saucers occasionally veer onto the screen, emitting shots of their own. Use your photon cannon to defend your spacecraft. You gain points for each hit. You can move your spaceship to any angle continuously, firing an unlimited supply of ammunition. "Hyperspace" makes your spacecraft disappear from the screen, out of danger momentarily, but still capable of being hit upon return. One to four players. Not just for kids. Uses Joystick Controllers (CX40-04).

Minimum RAM requirement: 8K

4. BASKETBALL (CXL4004)

You can dribble, shoot, pass, block shots and even make steals. Five different game variations allow one, two, three or four players to compete. Play against the computer, your family or friends. This game uses up to four Joystick Controllers (CX40-04).

Minimum RAM requirement: 8K

4. COMPUTER CHESS (CXL4009)

You can play chess against the computer. Eight levels of play are available. Moves are made using a Joystick Controller (CX40). The chess board and pieces are shown on the screen. Both "castling" and "en passant" moves can be made by you or the computer. The board can be set up for a particular chess problem or situation. The computer can play either white or black.

Minimum RAM requirement: 8K

4. MISSILE COMMAND™ (CXL4012)††

Defend six major cities from nuclear attack using three missile bases, like the popular ATARI arcade game. Try to destroy incoming nuclear missiles, guard against killer satellites and bombers, and smart missiles that can dodge your fire. After each battle with the enemy, your points are tallied based on how many cities you have protected and how many missiles you have remaining. Your missile base has a limited arsenal. You use a Joystick Controller (CX40-04) to move the cursor to the selected target area. Each round becomes successively more difficult; the game lasts until all of your cities have been destroyed. One or two players. A game for kids of all ages.

Minimum RAM requirement: 8K

4. STAR RAIDERS™ (CXL4011)

A state of war exists between the Atarian Federation and the Zylon Empire. Your mission: Destroy all Zylon star ships. This strategy and action game features four mission skill levels and rates a player at the end of each session. Dramatic sounds and screen displays make this the most exciting space game available today. Your battleground is the entire galaxy. Meteors fly through space, Zylon fleets surround and destroy friendly star bases, and docking at a starbase enables you to receive a new supply of energy and repair damaged equipment. Cartridge; for one player; uses a Joystick Controller (CX40).

Minimum RAM requirement: 8K

4. 3-D TIC-TAC-TOE (CXL4010)

Now you can play Tic-Tac-Toe from a three-dimensional perspective. The game cartridge program also contains Bottoms-Up, a variation of 3-D Tic-Tac-Toe. Match wits with the computer or compete against another player in either version. One-player games feature eight difficulty levels. Uses Joystick Controllers (CX40-04).

Minimum RAM requirement: 8K

4. VIDEO EASEL™ (CXL4005)

You can create a design or pattern on the screen using the keyboard or up to four Joystick Controllers (CX40-04), then watch as

the computer expands on the original pattern indefinitely. Many variations allow you to create imaginative and colorful graphic designs. Options include Drawing, Quad Drawing, Life (which uses the mathematic principles of John Conway's game of "Life"), resetting the color and six preprogrammed Painting designs. Cartridge.

Minimum RAM requirement: 8K

5. SUPER BREAKOUT® (CXL4006)

This is a sophisticated version of the popular electronic video game Breakout, in which you smash through layers of bricks and knock out a wall. Four different games are available, up to eight players can play, and a rating is displayed at the end of each game. You can optionally suspend play or request five additional serves. This cartridge uses up to four Paddle Controllers (CX30-04).

Minimum RAM requirement: 8K

6. SPACE INVADERS* (CX4111)

You've made a mission to the moon, but so have the deadly SPACE INVADERS. It's up to you to protect the lunar surface as well as yourself and your laser cannon. The SPACE INVADERS program cassette has 12 different game variations, including some where the enemy shoots diagonally. For one or two players. Uses Joystick Controllers (CX40-04). Requires the ATARI 410™ Program Recorder.

Minimum RAM requirement: 8K

1. BLACKJACK (CX4105)

Play one of the most popular casino games at home with your ATARI Personal Computer System. The computer is the dealer and it plays by the rules. You, on the other hand, bet money and decide whether to stand, draw another card or double down in your effort to hit 21. One cassette. Requires the ATARI 410 Program Recorder.

Minimum RAM requirement: 8K

††Estimated availability third quarter 1981.

*Trademark of Taito America Corporation.



PROFESSIONAL AND BUSINESS APPLICATIONS

PROFESSIONAL APPLICATIONS

1. ATARI® WORD PROCESSOR (ATARI 810™ VERSION CX404††, ATARI 815™ VERSION CX 408††)

Increase your productivity with the ATARI Word Processor. Text, reports, documents, letters and memos can be created, edited, stored and printed. Anyone who does any typing will find this program beneficial—teachers, writers, secretaries, entrepreneurs, college students. Two diskettes. Requires the ATARI 800™ Computer, an ATARI Disk Drive, ATARI 850™ Interface Module and ATARI 825™ 80-Column Printer (or suitable letter-quality printer). Available in ATARI 810 or ATARI 815 Disk Drive versions.

Minimum RAM requirement: 48K

2. CALCULATOR (CX8102)††

Turn your ATARI Personal Computer into a powerful programmable calculator with 145 functions. Program it yourself using the 3072 byte (3K byte) program memory and 100 memory registers (direct addressing). Algebraic (with or without operator precedence—ALG or ALGN) or Reverse Polish Notation (RPN) may be used. The stack display holds up to 42 characters.

Unlike pocket calculators, the ATARI Calculator program uses the computer keyboard to create a 40 by 24 character display. You see the first ten locations of the stack and memory and the current status of the calculator at a glance. A variety of helpful messages in English such as "ENTER NEW UNITS" tell you what to do next, and error messages such as "ARITHMETIC OVERFLOW" tell you when things go wrong.

Specific Features:

- Numbers-decimal, hex, octal
- Basic functions—+, —, *, /
- Calculation modes—ALG, ALGN, RPN
- Single-variable functions

- Trigonometric functions
- Computing hyperbolic functions
- Logarithms/powers of 10 and e
- Two-variable functions
- Bit manipulation functions
- Memory for data and program storage
- Conversions (examples: teaspoons/cups, grams/ounces, meters/miles, Fahrenheit/Celsius, degrees/radians)
- Polar-rectangular conversions
- Statistical functions (including linear regression)
- Compound interest and annuities
- Programmable
- Input/output-printer, SAVE/LOAD, DOS
- Error messages/helpful prompt messages

The Calculator program diskette requires the ATARI 800 Computer and an ATARI 810 Disk Drive. Attach an ATARI Printer and it becomes a printing calculator.

Minimum RAM requirement: 24K

3. GRAPH IT™ (CX4109)

Create your own bar charts, pie graphs, two and three-dimensional plots and polar plots on your television screen. Use your Joystick Controller (CX40) to find values of specific points on the two and three-dimensional plots. Two cassettes. Requires the ATARI 410™ Program Recorder.

Minimum RAM requirement: 16K

3. STATISTICS 1 (CX4103)

Use Statistics 1 to determine general statistics from your data, such as mean, mode, median, standard deviation, variance, skewness, kurtosis, and root mean square. ATARI's unique editing capability allows you to replace erroneous data inputs rapidly. Cassette. This program requires the ATARI 410 Program Recorder.

Minimum RAM requirement: 16K

BUSINESS APPLICATIONS

ATARI ACCOUNTANT™

The ATARI Accountant brings sophisticated computerized accounting to the small business

or professional person. Three packages are available—General Accounting System (CX401),† Accounts Receivable System (CX402)†† and Inventory Control System (CX403).†† Each can be used alone or together for your business accounting. An accounting primer is included. Each package consists of several diskettes. Requires the ATARI 800 Computer, ATARI 815™ Dual Disk Drive, ATARI 850™ Interface Module and ATARI 825™ 80-Column Printer.

Minimum RAM requirement: 48K

1. GENERAL ACCOUNTING SYSTEM (CX401)†

The General Accounting System is all many businesses need to automate their accounting functions. The program produces financial reports, including a balance sheet, profit and loss statements and subsidiary ledgers for accounts receivable, accounts payable and payroll.

1. ACCOUNTS RECEIVABLE SYSTEM (CX402)††

The Accounts Receivable System is for businesses with a large volume of active accounts requiring either an open-item or balance forward system. With this program you can print statements and customer mailings automatically.

1. INVENTORY CONTROL SYSTEM (CX403)††

The Inventory Control System allows you to monitor a large or rapidly turning inventory, employing either the LIFO, FIFO or Average Costing methods. This program allows you to print invoices, purchase orders, packing slips and stock labels automatically.

ATARI WORD PROCESSOR††

(See **Professional Applications** for description.)

1.



2.



PROGRAMMING LANGUAGES AND AIDS

PROGRAMMING LANGUAGES AND AIDS

4. ATARI® BASIC (CXL4002)

BASIC (which stands for Beginner's All-Purpose Symbolic Instruction Code) is a high-level, easy-to-learn computing language commonly available on many personal and larger computers. ATARI BASIC is an 8K floating-point BASIC with 9 to 10-digit number precision. The BASIC interpreter includes features that utilize capabilities of the ATARI Personal Computer System, such as access to color and character graphics, sound synthesis and the controller ports (so that you can write your own games). It includes PEEK and POKE instructions, and also allows machine language subroutines to be called from BASIC programs. The ATARI peripherals are fully accessible through BASIC. This cartridge is included with the ATARI 800™ Personal Computer System,¹ along with the ATARI BASIC Self-teaching guide and the ATARI BASIC Reference Manual. Uses 3K of RAM.

2. MICROSOFT BASIC (CX413)††

ATARI's Microsoft BASIC makes programs written in this popular computer language available to ATARI Personal Computer owners. Language extensions provide convenient access to the special sound and graphics capabilities of your ATARI computer. Accompanying documentation explains the use of the new language features provided, plus special information on hardware support for player/missile graphics, character set definition, and color and sound parameters. Microsoft BASIC offers many additional powerful commands. It is faster than ATARI BASIC and provides greater floating point precision (to 14 digits). Microsoft BASIC's features make it particularly appropriate for the experienced software developer. Diskette, The ATARI 800 Computer and the ATARI 810™ Disk Drive are required.

Minimum RAM requirement: 32K

3. PILOT (WITH "TURTLE" GRAPHICS) (CX405)††

PILOT (which stands for Programmed Inquiry, Learning or Teaching) is an easy-to-learn and easy-to-use programming language. It was designed for teachers to use for creating interactive educational programs. PILOT's simple syntax and text orientation make it an ideal language for introducing computer programming to both children and adults; in fact, novice users may write interesting programs after their first or second session. ATARI PILOT also features a powerful set of simple graphics commands ("turtle" graphics) for drawing color designs and pictures on the television screen, musical sound generation for up to four simultaneous voices, and commands for accessing files on diskette and cassette (including the use of synchronized pre-taped audio for enhancing instructional programs). Cartridge. Includes a beginner's programming guide and a reference guide. Also includes PILOT application programs on two cassettes illustrating programs for kids, graphics capabilities, and uses for teachers and business people (minimum RAM requirement: 16K). ATARI 410 Program Recorder required for PILOT application programs. ATARI 810 Disk Drive and ATARI Printer optional. Suitable for ages 8 to adult.

4. ASSEMBLER EDITOR (CXL4003)

Write your own program in assembly language. Perfect your program by single-stepping through it and observing how memory and the processor's registers are affected by each instruction. Store your programs on cassette or diskette and recall them later for editing and execution. Use assembly language when you need fast, efficient code. This cartridge includes an Editor and a Debugger. It comes with a user's manual.

2. DISK OPERATING SYSTEM II

ATARI 810 Master Diskette II (CX8104) ATARI 815™ Master Diskette (CX8201)

The Disk Operating System (DOS) is a collection of programs that allow your computer to communicate with your disk drive. DOS enables you to store and retrieve programs, duplicate and delete diskette programs, load and save binary files, and move files to and from memory, the screen, diskette and printers. DOS comes with the ATARI 810 Disk Drive on the ATARI 810 Master Diskette II (CX8104), and with the ATARI 815 Dual Disk Drive on the ATARI 815 Master Diskette (CX8201).

You need at least 16K of RAM to use an ATARI disk drive because DOS takes up approximately 10K of RAM (this number varies with the number of files open, the number of drives and the version of DOS being used). The ATARI BASIC cartridge uses approximately 3K of additional RAM. Since both DOS and BASIC use RAM, ATARI diskette programs generally require a minimum of 24K of RAM. If you plan to write your own programs, you will need to allow for the fact that BASIC and DOS use RAM. The larger the program, the more memory you will need to add to your ATARI 800™ computer.

If you already have the first version of the Disk Operating System (DOS I) (ATARI 810 Master Diskette CX8101), use Disk Operating System II (DOS II) for faster data access, more utilities, and for random access to data with the BASIC commands NOTE and POINT. DOS II also requires approximately 2K less resident RAM than DOS I.

Minimum RAM requirement: 16K

¹The ATARI BASIC cartridge can be purchased separately for the ATARI 400 Computer.

†Estimated availability second quarter 1981.

††Estimated availability third quarter 1981.



ATARI 400 (16K)
OR ATARI 800
PERSONAL COMPUTER

ATARI 410™
PROGRAM RECORDER



ATARI 400 OR
ATARI 800 PERSONAL
COMPUTER

ATARI® PERSONAL COMPUTER EQUIPMENT

ATARI PERSONAL COMPUTERS

The electronic structure of the ATARI 400™ and ATARI 800™ computers is basically the same. Included with each are an operator's manual, TV Switch Box and AC Power Adapter. The two computers differ in only five ways: Random Access Memory (RAM) expandability, keyboard, dimensions, price, and the ATARI 800 provides a monitor jack which allows you to connect it to either a computer monitor or TV set. Price and memory expandability are the key considerations in determining which system best fits your present and future needs. Your ATARI computer dealer is an expert who can help you choose the components of a computer system that best fits your requirements.

ATARI 400/800™ COMPUTER FEATURES

Computer Console: FCC approved, with built-in RF modulator. Connects to any TV (U.S.A.).

Color: Choose from 16 colors, each with 8 intensities.

Sound: Four independent sound synthesizers (in addition to audio through TV) for musical tones or game sounds. Four octaves. Variable volume and tone. Internal speaker.

Display: Three text modes: 24 lines of 40 characters; double-width characters; or double-height, double-width characters. Six graphics modes: From 40 columns by 24 rows to 160 columns by 96 rows available with 8K of RAM; up to 320 columns by 192 rows available with 16K of RAM.

Keyboard: 57 alphanumeric keys plus 4 special function keys. Upper/lower case. Inverse video. Full screen editing. Four-way cursor control. 29 graphics keys.

I/O: Serial input/output port for simple connection to peripherals. Four controller jacks for light pen, joystick, paddle and keyboard controllers.

Memory: Includes a built-in 10K Read Only Memory (ROM) Operating System. ROM may be expanded with user-installed cartridge programs.

CPU: 6502 Microprocessor. 0.56 microsecond cycle. 1.8 MHz.

Power: AC transformer, UL approved, included. 120 VAC.

THE ATARI 400 PERSONAL COMPUTER

The ATARI 400 computer is very much at home in the classroom, kitchen, family room or den. Its monopanel keyboard is virtually child and spill-proof. Thus, it is a perfect learning or teaching tool. It can also form the basis of an inexpensive telecommunications system which allows you to communicate with other



computers or access large data bases or services such as stock market quotations or electronic mail. It is the perfect computer for a beginning user. The ATARI 400 computer is now available with 16K bytes of Random Access Memory (RAM). An 8K model can be expanded to 16K at an authorized ATARI service center.

ATARI 400 COMPUTER FEATURES

- RAM: 16K bytes of RAM included.
- Keyboard: Monopanel, pressure-sensitive, plastic keyboard.
- No monitor jack.
- Dimensions: 13½" x 11½" x 4½," 5¾ lbs.

ATARI 400 COMPUTER APPLICATIONS

The ATARI 400 computer can be used in the following applications (some of these programs require the ATARI BASIC cartridge):

Personal Finance & Record Keeping:

Mortgage & Loan Analysis.

Personal Interest & Development

An Invitation to Programming™ 1, 2 & 3
Biorhythm, Music Composer,™ Conversational French, German, Spanish and Italian,
Touch Typing.

Education:

ATARI Education System: Educational System Master Cartridge and Talk & Teach™ cassettes (16 subjects)
Hangman, Kingdom,™ Energy Czar,™ Scram™ (A Nuclear Power Plant Simulation), States & Capitals, European Countries & Capitals.

Professional Applications:

Graph It,™ Statistics 1.

Information & Communication:

TeleLink™ 1.

Entertainment:

Asteroids,™ Basketball, Blackjack, Computer Chess, Missile Command,™ Star Raiders,™ 3-D Tic-Tac-Toe, Video Easel,™ Super Breakout,® Space Invaders.*

Programming Languages & Aids:

BASIC, PILOT, Assembler Editor.



ATARI® PERSONAL COMPUTER EQUIPMENT

THE ATARI® 800™ PERSONAL COMPUTER

The ATARI 800 forms the basis of advanced personal, business and professional computer systems. Its Random Access Memory (RAM) capacity may be easily expanded to 48K with convenient, slip-in Memory Modules.™ In addition, it accepts all ATARI programs and peripherals. The ATARI 800 is capable of

controlling up to four disk drives and a variety of printers. It also offers a monitor jack, typewriter-style keyboard and the ability to handle ATARI Microsoft BASIC, a powerful BASIC which provides additional programming tools and utilities.

ATARI 800 COMPUTER FEATURES

- RAM: 16K bytes of RAM included. May be expanded in 8K or 16K increments up to 48K RAM with user-installed Memory Modules.
- Keyboard: Full-stroke, typewriter-like keyboard which allows fast, easy data



entry and interaction with the computer.

- Monitor jack allows composite video output for connection to a color or black-and-white monitor (in addition to connection to a standard television set).
- Language: ATARI BASIC cartridge is included.
- ATARI BASIC Self-Teaching Guide and ATARI

BASIC Reference Manual included.

- Dimensions: 16" x 12½" x 4½," 9¾ lbs.



ATARI® 410™ PROGRAM RECORDER

The ATARI 410 Program Recorder provides storage and retrieval of programs and data on cassette tape. In addition to the digital track that stores computer data, a second audio track is provided to play music or voice through your television speaker as the program runs.

FEATURES

- Direct serial interface to ATARI Personal Computer Systems.
- Automatic motor control.
- 2-Channel (digital data and audio track).
- 3-Digit tape counter.
- Pushbutton controls for RECORD, REWIND, PLAY, ADVANCE and STOP/EJECT.
- Audio track plays through television speaker.
- Data transmission rate: 600 bits per second.
- Cassettes play on both sides.
- 100,000 bytes of data storage per 60-minute cassette.
- Built-in accidental erasure prevention device.
- Preset volume level.
- Power: Built-in power supply, UL approved. 120 VAC.
- Dimensions: 9½" x 6¾" x 2¾," 44 oz.





ATARI disk drives provide fast and efficient data storage and retrieval. Both use standard 5½" diskettes. The ATARI 810 is a single density disk drive. The ATARI 815 is a double-density, dual disk drive offering four times the storage capacity of the ATARI 810. A minimum of 16K of RAM is required to operate the drives. A Master Diskette containing the disk operating system (DOS) programs is supplied with each drive. The ATARI Personal Computer can control up to four disk drives. The ATARI 810 and ATARI 815 Disk Drives may be combined in a single system.

ATARI 810 DISK DRIVE FEATURES

- Direct serial interface to ATARI Personal Computer Systems.
- Power on/off switch.
- "Disk busy" indicator light.
- Built-in 6507 microprocessor and on-board ROM give automatic stand-by capability.
- Average access time: 74 milliseconds.
- Maximum access time: 236 milliseconds.
- Individual device-address when more than one ATARI 810 Disk Drive is used.
- Average data transfer rate: 6000 bits per second.
- Data transfer rate: 19.2K bits per second.
- Uses Cyclic Redundancy Check (CRC) to check for errors.

Error recovery rate

(soft errors): 1 per 100,000,000 bits read.

- Each diskette is divided into 720 sectors, 13 of which are used for software control.
- The ATARI 810 Disk Drive stores 128 bytes of data in each sector (3 bytes are used to address the next sector).
- 88,375 bytes per diskette are available for program and data storage.
- Media life: 3,000,000 passes on a single track.
- Packed with I/O connector, ATARI 810 Master Diskette, operator's manual and Disk Operating System Reference Manual.
- Power: AC transformer, UL approved, included. 120 VAC.
- Dimensions: 12" x 9½" x 4¾," 104 oz.

ATARI 815 DUAL DISK DRIVE FEATURES

- Direct serial interface to ATARI Personal Computer Systems.
- Uses standard 5½-inch soft-sectorized diskettes which are certified for double density use.
- Stores 178K bytes of data on each diskette.
- Individual device addresses for each drive unit.
- Power on/off switch and light.
- "Disk busy" indicator light for each drive.

- "Read" indicator light for each drive.
- "Write" indicator light for each drive.
- "Write Protect" indicator light for each drive.
- "Write Protect" switch for each drive.
- Uses Cyclic Redundancy Check (CRC) to check for errors.
- Error recovery rate (soft errors): 1 per 100,000,000 bits read.
- Each diskette is divided into 720 sectors, 13 of which are used for software control.
- The ATARI 815 Dual Disk Drive stores 256 bytes of data in each sector (3 bytes are used to address the next sector).
- Average access time for each diskette: 70 milliseconds.
- Maximum access time: 210 milliseconds.
- Media life: 3,000,000 passes on a single track.
- Built-in 6507 microprocessor and on-board ROM serve as disk controller and interface to computer console.
- Formats diskettes.
- Power: Built-in power supply, UL approved; 120 VAC.
- Dimensions: 12" x 9½" x 8¾," 200 oz.

ATARI® 822™ AND ATARI 820™ 40-COLUMN PRINTERS

ATARI 40-column printers allow you to print out and keep a permanent record of programs you write or data generated by the programs you use. The ATARI 820 prints 40 characters per second. Printout may be horizontal or vertical. The ATARI 822 is a quiet, lightweight, compact printer that prints 37 characters per second or plots points one line at a time through a simple assembly language routine.

ATARI 822 PRINTER FEATURES

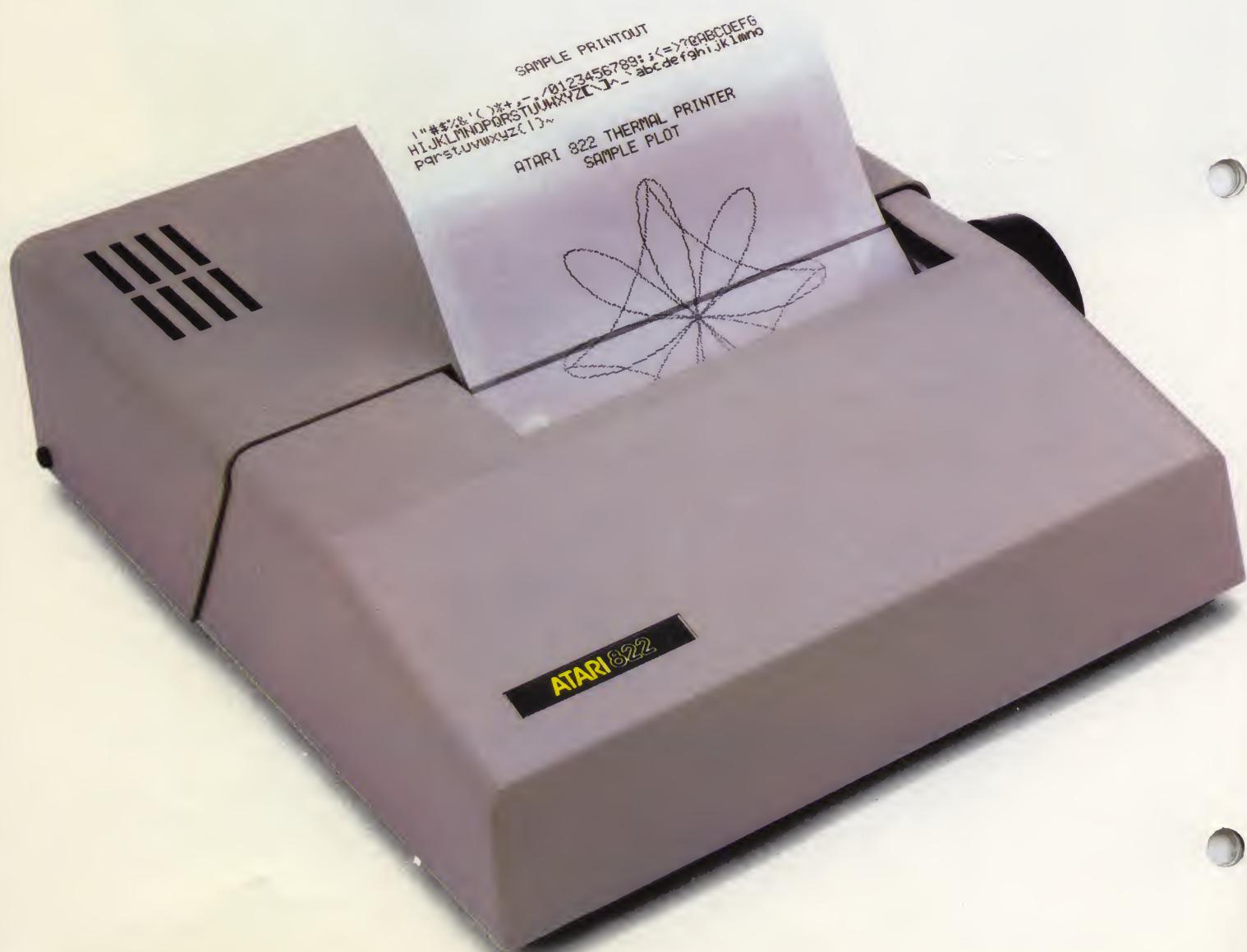
- Direct serial interface to ATARI Personal Computer Systems.
- Printing speed: 37 characters per second.
- 10 characters per inch.
- 40 characters per line, upper/lower case and point graphics.

- 5 x 7 dot matrix.
- Built-in microprocessor.
- 96 character ASCII set.
- Full line buffering.
- Bidirectional look-ahead print head.
- One roll of white thermal paper installed.
- Power: AC transformer, UL approved, included. 120 VAC.
- Dimensions: 9½" x 7½" x 2¾," less than 6 pounds.

ATARI 820 PRINTER FEATURES

- Direct serial interface to ATARI Personal Computer System.
- High resolution, 5 x 7 dot matrix, impact printer.
- 40 characters per line, upper & lower case alpha.

- Horizontal and vertical alphanumeric characters.
- Power switch and indicator light.
- Paper advance button.
- Built-in 6507 microprocessor, 6532 RAM I/O chip and 2K of on-board ROM.
- Crystal controlled for data accuracy.
- Printing speed: 40 characters per second.
- Uses Standard Roll Paper (one roll included): 3¾" x 3¼" diameter, available at most stationery stores.
- Power: Built-in power supply UL approved. 120 VAC.
- Dimensions: 12" x 9½" x 5½," 168 oz. (including paper).



ATARI® 820™ 40-COLUMN PRINTER



THE ATARI® 825™ 80-COLUMN PRINTER





The ATARI® 825™ is a versatile dot matrix impact printer that can handle almost any printing task. It can print lines up to 8 inches long in four different character modes: monospaced (uniformly spaced) characters at a density of 10 characters per inch, condensed characters at 16.7 characters per inch, proportionately spaced characters, and double-width characters. It can be set to justify the right margin, execute forward or reverse line feeds, half space, and underline. All character modes and functions are set by control codes from the computer.

In addition, this printer can handle three kinds of paper: roll paper, computer-grade fan-

fold (including three-part forms) and single sheets.

The ATARI 825 Printer connects easily to the ATARI 850™ Interface Module, which is required for operation of the Printer.

FEATURES

- Microprocessor electronics.
- Prints three character sets: monospaced 7 x 8 dot matrix characters at 10 characters per inch (cpi); monospaced condensed at 16.7 cpi; proportionately spaced N x 9 dot Matrix characters at avg. of 14 cpi (N=6, 7, 8...., 18 dot column variable).
- Each character set with 96 standard ASCII characters.
- All characters can be elongated (printed double width).
- Character density: 10 or 16.7 characters per inch (cpi) monospaced; approx. 14 cpi proportionately spaced; half as many if elongated.
- No. characters per line: 80 at 10 cpi; 132 at 16.7 cpi.
- Printer speed: 50 characters per sec. (cps) with 10-cpi monospaced; 83 cps with 16.7-cpi condensed; 79 cps (avg.) with proportionately spaced. 22 lines per min. (lpm) with 80 columns; 60 lpm with 20 columns.
- Unidirectional printing at 5 inches per second.
- Carriage return speed upward of 5 inches per second.
- Print buffer capacity: 80 char. at 10-cpi monospaced; 132 char. at 16.7-cpi condensed; 1200 dot columns.



- Vertical line feed: 6 lines per inch.
- Forward and reverse line feed.
- Full and half line spacing.
- Right margin justification capability with condensed or proportionally spaced characters.
- Underscoring and backspacing capabilities.
- Three-way paper handling: roll, fanfold, cut sheets.
- Ribbon system: continuous ribbon 9/16-inch (14mm) wide, 20 yards (18.3 meters) long. Mobius loop allows printing on upper and lower portion of ribbon on alternate passes.
- Ribbon, built-in power supply, interface cable and operator's manual are all included.
- Operator controls:
 - POWER ON/OFF switch
 - ON-LINE/LOCAL switch
 - PAPER REV/FWD switch (Local Mode)
- Data input: 7-bit parallel ASCII-coded data.
- Dimensions: 14.5 inches/37 cm. wide, 11.0 inches/28 cm. deep, 5.0 inches/13 cm. high. Dimensions exclusive of roll paper holder. Weight: 12 lbs./5.4 kg.
- Power: built-in supply, UL approved, included. 120VAC.
- Temperature/Humidity:
 - Operating: 40°F-100°F (4.4°C-37.7°C)
 - 30%-90% RH, no condensation
- Storage: -35°F-140°F (-37.2°C-60°C)
- 5%-95% RH, no condensation

NOTE: The ATARI 825 printer must be used in conjunction with the ATARI 850™ Interface Module. Paper is not included.

THE ATARI® 850™ INTERFACE MODULE



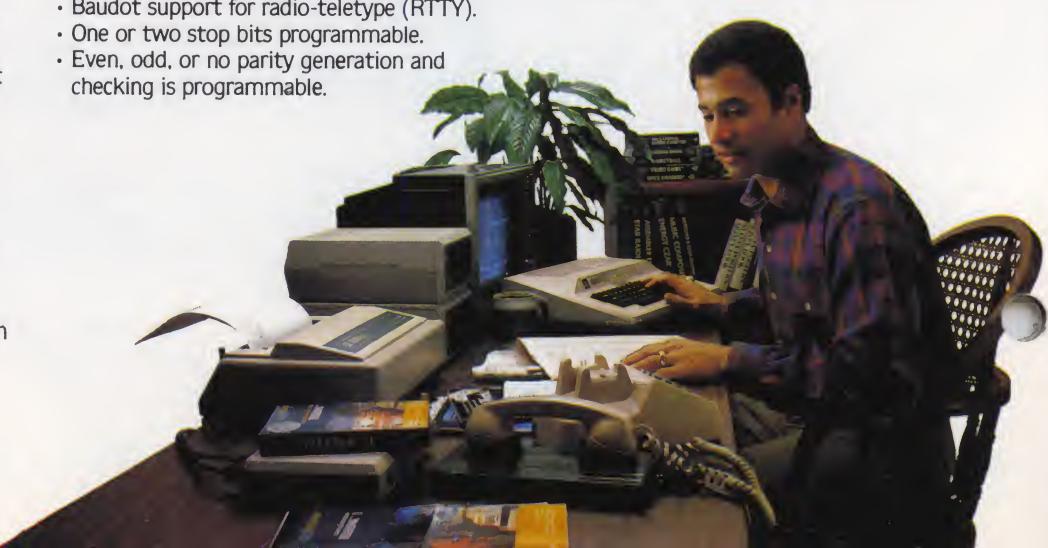
Both the ATARI 830™ Acoustic Modem and the ATARI 825™ 80-Column Printer connect to ATARI Personal Computer Systems through the ATARI 850 Interface Module. With the ATARI 850 you can access a larger family of peripheral devices, such as digitizers, plotters, sensors or controllers.

FEATURES

- Direct serial interface to ATARI Personal Computer Systems.
- Programmable.
- Four serial interface ports for use with the ATARI 830 Acoustic Modem and other EIA RS232C-compatible peripherals: All have Send and Receive data signals. Port 1 has five additional control signals (Data Terminal Ready, Data Set Ready, Clear to Send, Request to Send and Carrier Detect). Data Terminal Ready and Data Set Ready signal readiness on ports 2 and 3. 20-mA current loop is connectable on port 4 for teletype.
- 8-bit parallel (Centronics type) interface port for use with the ATARI 825 80-Column Printer.

- Automatic telephone answering when used with an appropriate modem.
- Full duplex operation.
- Programmable Baud rate on any port, including 75, 110, 134.5, 150, 300, 600, 1200, 1800, 2400, 4800 and 9600 bits per second. Baudot speeds of 60, 66, 75 and 100 words per minute.
- Serial communication via standard asynchronous start bit/stop bit.
- Uses standard ASCII for communications with most computer-related devices.
- Baudot support for radio-teletype (RTTY).
- One or two stop bits programmable.
- Even, odd, or no parity generation and checking is programmable.

- Serial interfaces meet EIA RS232C specifications and allow cable lengths up to 50 ft. (15 meters).
- To be used with your ATARI Personal Computer System, the ATARI 825 80-Column Printer and the ATARI 830 Acoustic Modem must be connected through the ATARI 850 Interface Module.
- I/O Data Cord included.
- Power: AC transformer, UL approved, included. 120 VAC.
- Dimensions: 9½" x 6¾" x 2"; 25 oz.



THE ATARI® 830™ ACOUSTIC MODEM

The ATARI 830 Acoustic Modem allows you to communicate with other computers over standard telephone lines. You gain access to computer data bases, information and services such as weather, transportation schedules, entertainment events, electronic mail... even computer programs.

FEATURES

- The ATARI 830 is a stand-alone, acoustically coupled, frequency shift keying (FSK) modem.
- Operates at rates up to 300 bits per second.
- Communications are possible with both originate-only or answer-only modems.
- Fully compatible with the Bell 103/113 series of modems.
- Controls
 - FULL: sets full-duplex operation
 - TEST: sets up audio self-test
 - HALF: sets up half-duplex operation

- ANS: sets answer mode
- OFF: turns ATARI 830 Modem power off
- ORIG: sets originate mode
- Transmitter Frequencies
 - Originate: mark, 1270-Hz; space, 1070-Khz
 - Answer: mark, 2225-Hz, space, 2025-Hz
- Receive Frequencies
 - Originate: mark, 2225-Hz; space, 2025-Hz
 - Answer: mark, 1270-Hz; space, 1070-Hz
- Receive Sensitivity: -50dBm
- Indicators
 - POWER: LED shows power ON/OFF
 - READY: LED shows ready to communicate
- Power: UL approved power adaptor included. 120 VAC.

- Electronic Requirements
 - UL-listed wall mount transformer on a six foot cord (included). Interface/Modem cable (part no. CX87) (included). This cable connects the ATARI 830 Acoustic Modem to the ATARI 850™ Interface Module.
- Dimensions: 10.2" x 4.7" x 2.3"; 1.5 lbs.
- Operational Environment
 - 32 to 122 degrees (F) or 0 to 50 degrees (C) in 10 to 90 percent relative humidity.
- Storage Environment
 - 40 to 140 degrees (F) or -40 to 60 degrees (C) in 10 to 90 percent relative humidity.



ATARI® ACCESSORIES

ATARI CONTROLLERS

ATARI controllers are another way to interact with the computer. They plug into one or more of the four controller jacks on the front of the ATARI 400™ or ATARI 800™ Personal Computer console. Many ATARI programs use paddle and joystick controllers.

THE ATARI CX70 LIGHT PEN

Press the ATARI Light Pen against your television screen and your computer records the position on the screen. Write your own programs that let you use the Light Pen to paint multi-colored scenes, pick items from a menu, play games or have your computer do geometric calculations for you. The ATARI Light Pen comes with complete instructions and a demonstration cassette (minimum RAM requirement: 8K).

LIGHT PEN FEATURES

- Use in all graphics modes.
- Can be used with BASIC, PILOT, assembly language and other ATARI programming languages.
- Paint in up to 5 colors.
- Lightweight.
- Method of operation: The Light Pen reads the coordinates of the TV electron beam as it passes the Light Pen.
- Resolution: Equivalent to the cursor on the screen (one letter position).
- Updating: Every frame—60 times a second.
- Light sensitivity: Operates under normal viewing conditions with all home televisions and monitors.
- Switch: Includes tip switch to signal computer when pen is pressed to screen.
- Dimensions: 7" x 7/8", 3 oz., 4-ft. cord.

OTHER CONTROLLERS

ATARI CX30-04 Paddle Controller Pair
ATARI CX40-04 Joystick Controller Pair
ATARI CX40 Single Joystick Controller
ATARI CX50 Keyboard Controller Pair

OTHER ACCESSORIES

Most of the following accessories are supplied with the appropriate ATARI equipment. These are replacements.

CX852 8K RAM Memory Module™
CX853 16K RAM Memory Module
CX81 ATARI I/O Data Cord (5 feet)
CX86 Printer Cable (Included with ATARI 825™ Printer)
CX87 Interface/Modem Cable (Included with ATARI 830™ Acoustic Modem)
CX88 Interface/Terminal Cable
CX89 Monitor Cable (Color Monitor)
CX82 Monitor Cable (Black and White Monitor)
CA014746 TV Switch Box (Included with ATARI 400™ and ATARI 800™ Computers.)
CA014748 Power Adaptor (Included with ATARI 400, ATARI 800, ATARI 810,™ ATARI 822,™ ATARI 850™)

CO14854 ATARI 820™ Printer Ribbon
CO14062 ATARI 820 Printer Paper
(Roll Paper)
CO16345 ATARI 822 Thermal Printer Paper
(2 rolls)
CA016087 ATARI 825 80-Column Printer
Ribbon (3 per box) (One included
with ATARI 825 Printer.)
CO16233 ATARI 825 80-Column Printer
Paper (Roll Paper)
CA16751-01 ATARI 830 Acoustic Modem
Power Adaptor (Included with ATARI 830)
CX8100 ATARI 810 Blank Diskettes
(5 per box)
CX8111 ATARI 810 Formatted Diskettes II
(5 per box)
CX8202 ATARI 810/815™ Blank Diskettes
(5 per box, certified for double
density use.)





CUSTOMER SUPPORT AND SERVICE

The ATARI® Toll-Free Number. ATARI provides toll-free telephone numbers that connect you with the ATARI Customer Support Department. Customer Support personnel can give you the name of your nearest ATARI dealer or answer technical questions about your ATARI programs or equipment when you call (800) 538-8547 (in California, (800) 672-1430). We take special care to answer all customer inquiries. In fact, ATARI has a continuing commitment to support each product we sell.

Documentation. Carefully written manuals with easy-to-follow instructions accompany all ATARI Personal Computer equipment and programs. For the computer programmer, the ATARI Technical Reference Notes and listings of the operating system and disk operating system utilities programs are also available.

CO14768 ATARI 400™ Operator's Manual
CO14769 ATARI 800™ Operator's Manual
CO14810 ATARI 410™ Operator's Manual
CO14760 ATARI 810™ Operator's Manual
CO16377 ATARI 815™ Operator's Manual
CO14762 ATARI 820™ Operator's Manual
CO15954 ATARI 822™ Operator's Manual
CO15506 ATARI 825™ Operator's Manual
CO15953 ATARI 850™ Operator's Manual
(Includes Programming Guide)
CO16367 ATARI CX70 Light Pen Operator's Manual
CO14385 ATARI BASIC Self-teaching Guide (Wiley Book)
CO15307 ATARI BASIC Reference Manual
CO15200 ATARI 810 Disk Operating System (DOS I) Reference Manual
CO16347 ATARI Disk Operating System II Reference Manual

Continuing Support. ATARI continually reviews and updates documentation to ensure that ATARI Personal Computers are easy to understand and use and to make more technical information available to advanced programmers and hobbyists.

Your ATARI computer dealer has a supply of literature describing each ATARI product in detail. As new products become available literature is immediately sent to each dealer.

THE ATARI CONNECTION.™ Each new ATARI Personal Computer owner receives a free one year subscription to THE ATARI CONNECTION, our quarterly magazine for ATARI computer users. Your subscription starts when you send in your warranty card. Every issue contains information on creative uses of ATARI Personal Computers, available new products and useful short programs. The magazine contains information of interest to almost every ATARI computer user—business and professional people, educators, technical experts, personal users—even children.

THE ATARI CONNECTION continually updates and informs a growing audience of ATARI Personal Computer owners.

User's Group Support Program. Joining a user's group is an excellent way to learn everything about your computer. The experience and know-how of fellow ATARI Personal Computer owners can help you become an expert—fast! ATARI has set up a User's Group Support Program to help you find an existing ATARI computer user's group, or form one of your own. This program also provides additional support in the form of technical information and special support packages.

The ATARI Program Exchange. To supplement the wide variety of software available from ATARI, and to assist ATARI Personal Computer owners in distribution and acquisition of programs, we created the ATARI Program Exchange. ATARI acts as a central

repository and distributor of user-written programs. You can expect high quality, imaginative software programs written by both professional programmers and ATARI hobbyists from the ATARI Program Exchange.

Warranty Information. ATARI extensively tests their Personal Computer products at the factory to ensure that all ATARI products are reliable. We also offer a 90-day limited warranty on all ATARI equipment.* ATARI maintains an extensive service network of authorized servicing dealers, Control Data Service Centers and ATARI service facilities in California and New Jersey, in case you ever need servicing. You can expect fast and dependable service.

*ATARI does not provide a limited warranty on computer programs but distributes them on an "as is" basis. Consult your warranty card for further information.



All product illustrations and specifications are based on authorized information. Although all descriptions are believed correct at publication approval, accuracy cannot be guaranteed. Some of the equipment shown on the product illustrations is optional at extra cost. ATARI Personal Computer Division reserves the right to make changes from time to time, without notice or obligation, in prices, specifications, colors and materials, and to change or discontinue models.



Computer Division, P.O. Box 427, Sunnyvale, California 94086
Call toll-free 800-538-8547 (In Calif. 800-672-1430) for the name of
your nearest ATARI retailer. Hours are 7:00 a.m. to 5:00 p.m. California time.

YOUR ATARI RETAILER

